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मानक

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Mazdoor Kisan Shakti Sangathan

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“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 4499 (1968): Dimensions for Depth of Holes for Studs
[PGD 31: Bolts, Nuts and Fasteners Accessories]



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Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 4499 - 1968

Indian Standard

DIMENSIONS FOR DEPTH OF HOLES FOR STUDS

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**INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

Gr 1

April 1968

Indian Standard

DIMENSIONS FOR DEPTH OF HOLES FOR STUDS

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INDIAN STANDARDS INSTITUTION
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Indian Standard

DIMENSIONS FOR DEPTH OF HOLES FOR STUDS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 7 February 1968, after the draft finalized by the Engineering Standards Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 A series of Indian Standards relating to screw threads and threaded fasteners based on the ISO metric screw thread has already been published. This standard deals with the dimensions for depth of holes for studs and is a necessary adjunct to IS : 1862-1967*.

0.3 For the dimensions of screw thread run outs, reference should be made to IS : 1369-1961†.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960‡. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the dimensions for depth of holes for studs conforming to IS : 1862-1967*.

2. DIMENSIONS

2.1 The dimensions for depth of holes for studs shall be as given in Table 1.

*Specification for studs (first revision).

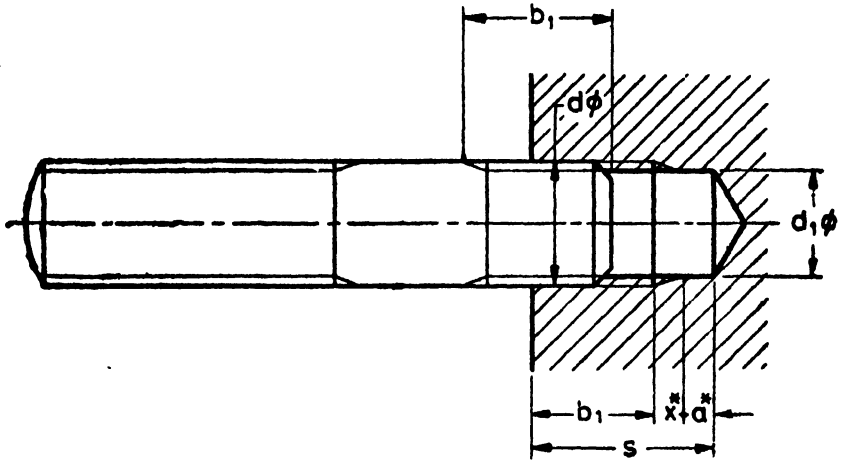
†Dimensions for screw thread run outs and undercuts

‡Rules for rounding off numerical values (revised).

TABLE 1 DIMENSIONS FOR DEPTH OF HOLES FOR STUDS

(Clause 2.1)

All dimensions in millimetres.



NOMINAL SIZE d	TAP DRILL d_1	STUD TYPE A (ACCORDING TO IS : 1402-1967†)		STUD TYPE B (ACCORDING TO IS : 1402-1967†)	
		b_1	s	b_1	s
M3	2.5	3	6	4.5	8
M3.5	2.8	3.5	7	5	8
M4	3.3	4	8	6	10
M4.5	3.75	4.5	9	7	11
M5	4.2	5	9	7.5	12
M6	5	6	11	9	14
M8	6.75	8	13	12	17
M8 × 1	7	8	13	12	17
M10	8.5	10	16	15	21
M10 × 1.25	8.8	10	15	15	20
M12	10.25	12	18	18	24
M12 × 1.25	10.8	12	17	18	23
M14	12	14	21	21	28
M14 × 1.5	12.5	14	20	21	27
M16	14	16	22	24	31
M16 × 1.5	14.5	16	22	24	30
M18	15.5	18	26	27	35
M18 × 1.5	16.5	18	24	27	33
M20	17.5	20	28	30	38
M20 × 1.5	18.5	20	26	30	36

(Continued)

TABLE 1 DIMENSIONS FOR DEPTH OF HOLES FOR STUDS — *Contd*

NOMINAL SIZE	TAP DRILL	STUD TYPE A (ACCORDING TO IS : 1862-1967†)		STUD TYPE B (ACCORDING TO IS : 1862-1967†)	
		b_1	$s\ddagger$	b_1	$s\ddagger$
M22	19.5	22	30	33	41
M22×1.5	20.5	22	28	33	39
M24	21	24	33	36	45
M24×2	22	24	31	36	43
M27	24	27	36	40.5	49
M27×2	25	27	34	40.5	47
M30	26.5	30	40	45	55
M30×2	28	30	37	45	52
M33	29.5	33	43	49.5	60
M33×2	31	33	40	49.5	56
M36	32	36	47	54	65
M36×3	33	36	45	54	63
M39	35	39	50	57.5	69
M39×3	36	39	48	57.5	66

*The values of x and a correspond to IS : 1369-1961 'Dimensions for screw thread run outs and undercuts'.

†Specification for studs (*first revision*).

‡The values of s are rounded off to the next higher millimetre.

NOTE — The values of s for studs with fine pitches not covered in the table shall be calculated by the formula $s = b_1 + x + a$ and then rounded off to the next higher millimetre. The dimension b_1 depending on the nominal size and type of stud corresponds to IS : 1862-1967 'Specification for studs (*first revision*)', and dimensions x and a corresponding to the pitch are to be taken from IS : 1369-1961 'Dimensions for screw thread run outs and undercuts'.

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INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	Unit	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	Unit	Symbol
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	Unit	Symbol	Definition
Force	newton	N	1 N = 1 kg.m/s ²
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	Pascal	Pa	1 Pa = 1 N/m ²

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